TO: All Merit Report Spokespersons

FROM: Bill Conway

DATE: December 14, 1982

RE: Sample Balancing Local Volunteer Samples

The national Merit Report survey employs rigorous probability sampling -- a random selection of telephone numbers to be dialed that represent, in their proper proportions, all the different regions of the country, listed vs. unlisted numbers, etc. Once a household is reached, a random selection is made of one adult in the household to be interviewed -- if more than one adult lives in the household. In addition, up to two callbacks are made to reach the selected respondent, if he or she is unavailable.

Despite this rigorous sampling, the laws of probability dictate that in about 5 cases out of 100, some segment of the population -- such as younger males -- may be under (or over) represented, i.e., we interviewed too few (or too many) than U.S. Census data tells us we should have interviewed. For this reason, the national Merit survey data is sample balanced* when we have some degree of over or under representation by region, sex, age, metro versus non-metro areas. Harris and Gallup do the same.

With local or van polling, we have no control over what kinds of people come into the vans; they are volunteers. Historically, we tend to get more males than females and a disproportionately high number of younger people (and a correspondingly low number of older people). In an effort to make these local polls as directional as possible, we determine from Census data the actual population within the metroplitan area being covered in terms of age and sex -- specifically what proportion of the adult population age 18

*An example of sample balancing is found on a following page.

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Source: https://www.industrydocuments.ucsf.edu/docs/rgbn0004

and older is in each of the following six groups.

18-34	35-49	50 and Older
Male	Male	Male
Female	Female	Female

Our computer program then uses these proportions to weight or sample balance our raw results from each of these sex/age groups, to produce a weighted set of percentage distributions.

For example, let's take the following hypothetical situation, where 600 men and 400 women are interviewed in a coach -- and where men and women differ in their opinions. Both the "raw" or actual numbers and percentages are shown to the left below:

	Raw Total		Male		Female		Weighted Total		(.833) Male		(1.25) Female	
	#	%	#	%	#	%	#	%	#	%	#	%
	1,000	100	600	100	400	100	1,000	100	500	100	500	100
Agree	580	58	400	67	180	45	558	56	333	67	225	45
Disagree	322	32	150	25	172	43	340	34	125	25	215	43
No Opinion	58	10	50	8	48	12	102	10	42	8	60	12

The Census data for the area tells us that males and females actually split 50%-50%. Our sample has 60% males and only 40% females. Since we have too many males, and males agree more than females, males are contributing more than they should to total "agree."

By downweighting males to bring them to 500 in total (multiplying male numbers by a weight of .833), and upweighting females to bring them to 500 in total (multiplying females by a weight of 1.25), we have brought the two sexes into the correct proportions and produced the somewhat different weighted total numbers and percentages shown to the right above. "Agree" drops two percentage points while "disagree" increases by two points. Please note, however, that this weighting only affects the total column -- the agree, disagree and no opinion percentages remain the same for males and female after weighting is applied.

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Source: https://www.industrydocuments.ucsf.edu/docs/rgbn0004